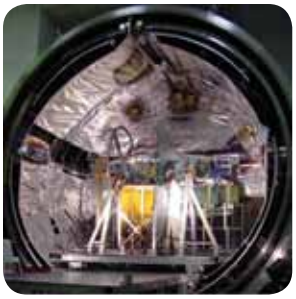
National Aeronautics and Space Administration

NASA's Strategic Capabilities Assets Program

NASA MARSHALL SPACE FLIGHT CENTER
LARGE APERTURE COATING FACILITY
18-FOOT COATING CHAMBER



The Large Aperture Coating Facility consists of a large vacuum coating system with the following capabilities: cryopumping; resistive, electro-beam evaporation; cryogenic cooling; and bakeout. This chamber has been used for optics-coating development work in the past. This work included e-beam gold coating for Constellation-X (CON-X) mandrels and resistive heating of aluminum for aluminizing a polymer sheet. The CON-X mandrels were used by Goddard Space Flight Center for its study on epoxy replicated x-ray optics. The aluminized polymer was used in testing activity at Marshall Space Flight Center looking into potential use in solar propulsion in space.

The facility is currently active and available for research or fabrication.

Working area	4.8 meters x 3 meters
Ultimate pressure	10^{-7} Torr
Clean room	7 meters x 8.8 meters—Class 100,000
Temperature range	-180 ºC to 120 ºC

CONTACT INFORMATION

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